

GENDER INTEGRATION IN THE NEW ZEALAND INFANTRY

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The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

GENDER INTEGRATION IN THE NEW ZEALAND INFANTRY, by Major John G. S. Rogers, 75 pages.

The purpose of this thesis is to develop a set of principles to ensure the effective integration of women into a light infantry unit, without impairing operational effectiveness. It is intended specifically for a New Zealand Army audience, but is equally applicable to any Western military.

The thesis develops a model for assessing combat effectiveness, and bases this model on combat power. The means of generating superior combat power in a light infantry unit are examined, with a view to assessing the effect that gender integration will have on a unit's effectiveness. It then analyzes current arguments for and against the inclusion of women in combat units. Particular attention is paid to arguments for equitable employment, physical differences, and organizational issues to develop some principles for effective integration.

The thesis concludes that women can be integrated into combat units without degrading combat effectiveness. A comprehensive review of presently arbitrary physical standards will be necessary, accompanied by the development of an objective, tactically derived standard. Some accommodation will be necessary for the privacy of both men and women. Some additional training requirements will arise for both genders, but the most important issue will be cultural change.

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CHAPTER 1

INTRODUCTION

My job is not just producing equal opportunities for the sake of it. My job is to produce the best forces possible. (2001)

Gen. Sir Charles Guthrie, Reuters

Women will soon be integrated into every type of employment within the New Zealand Defense Force (NZDF). Women are already serving in artillery, armored and engineer units, and the first female infantry officer was due to graduate from officer training in December 2000. Women serve in ground combat units in Belgium, Canada, Denmark, France, Hungary, The Netherlands, Norway, Portugal, Singapore, South Africa, Spain, and Sweden. In January 2001, Germany included women in the ground combat ranks (MacLeod, Kim, and Donnan 2000, 4). In New Zealand, the reaction to this integration has been varied. Many men are skeptical about women's ability to serve effectively as infantry soldiers, believing that they are unable to meet the rigorous standards of the combat arms. The comment above, made by General Guthrie in 2001, is typical of this view. Many women see it as an opportunity long overdue.

As a commander who has seen service on operations with women and may one day command women in combat, I would like to see that this integration influences combat effectiveness positively rather than negatively. I believe that full integration is possible, but that it must be carefully managed to ensure that the NZDF achieves equity rather than a mere political statement. It would be a shame for a poorly executed

integration program to harm our ability to achieve our mission, or to harm the women it is meant to help. I believe from my own experience that many of the perceived barriers to integration are artificial and have no real basis in fact, and this issue will be examined in the detailed analysis. I consider it important, therefore, to identify possible difficulties with the integration process and identify means for overcoming these difficulties.

In 1998 Dr. Clare Burton, a scholar and researcher on gender bias employed by the NZDF, completed her *Report of the Gender Integration Audit of the New Zealand Defense Force* (now referred to as the Burton Report). She based her audit on interviews with a wide range of NZDF staff, to include senior officers from all three services, as well as noncommissioned officers and junior ranks from across the Defense Force. Dr. Burton included men and women in her sample and interviewed civilian staff during her research. She conducted a broad literature and document review that included a review of policy in other military organizations. Her report concluded that a number of NZDF policies and practices disadvantaged minority groups in general, and women in particular. She made a number of recommendations to the Chief of the Defense Force (CDF) to remedy this problem. These recommendations covered areas such as women in combat roles, career progression for women, and the development of a family friendly working environment (Burton 1998, 231-243). They will be discussed in greater detail in chapter 2, but the recommendations serve to reduce discrimination in the services and to ensure full and fair integration of women into the NZDF.

It is likely that these recommendations will have an effect on two key areas of New Zealand service life. In the first instance it is possible that, as intended, policy change will result in a fairer and more equitable work environment. What is less

apparent is the effect that Dr. Burton's recommendations will have on the operational effectiveness of the NZDF, and in particular of the ground combat forces. On an initial examination, four possibilities present themselves. The first is that operational effectiveness is not affected at all. The second is that it is enhanced. The third is that it is degraded and the fourth is the possibility that some aspects of effectiveness are enhanced while others are degraded. It is essential to determine these effects and to identify the implications they have for the structure, capability, and ethos of a future force. The problem can be reduced to one question: How does the NZDF integrate women into combat units while maintaining or improving the force's present operational effectiveness?

Thesis Question

The thesis question will therefore be, How does the NZDF integrate women into combat units while maintaining or improving the force's present operational effectiveness? A number of subordinate questions can be identified to assist in answering this primary question. These include:

1. What is operational effectiveness?
2. What are the arguments for integrating women into combat units?
3. What are the arguments against integrating women into combat units?
4. What, therefore, is the most effective means of integration that best maintains or improves the force's operational effectiveness?

At first glance the thesis question appears to be simple and to require a simple answer. There are, however, a number of issues that make it more complex. The first is

defining combat effectiveness. What is it, is it desirable and if so why? Are there elements to combat effectiveness, and how are these used to build an effective unit? Is combat effectiveness the most important quality of a combat force? The next issue is measuring this effectiveness, especially as most measures are subjective and qualitative in the absence of actual combat. Are all of the standards applied in assessment today valid and fair, or are there some standards that discriminate unnecessarily? A model for describing and assessing combat effectiveness within a light infantry unit will be developed.

In the absence of a live combat environment, objective measures of effectiveness are near impossible. Perhaps the only subjective measure of a force's operational effectiveness is its ability to achieve its mission. In the case of a ground combat force, this mission is to close with and defeat an enemy. There must be an examination of what the government, and by extension the nation, requires of a force, and where combat effectiveness features in this requirement. Some means of measurement must be identified, so that changes in the level of effectiveness can be detected. Certainly it will be possible to identify some elements of combat effectiveness, and it may be possible to measure some of these more objectively.

A third issue is identifying the effect that the inclusion of women in combat units will have. This effect will be assessed against the elements of combat effectiveness identified during the analysis. The assessment will focus on the arguments for and against gender integration in contemporary military forces. Much of the available literature focuses on the US military, and particularly the Marine Corps. The arguments

presented there, largely against integration, will be discussed to determine their validity in the NZDF.

It is likely that different methods of integrating women into combat units will be possible. The differences could be over time, organizational structure, or area of employment; each method is likely to effect combat effectiveness differently. An example of one method is applying quotas to recruitment and training of female infantry soldiers to ensure female representation proportional to that in the wider army or in society. Some broad methods will be identified and examined with a view to establishing guidelines to an effective and smooth transition. Possible pitfalls will be identified, along with the means to avoid them.

It would be remiss at this point not to examine the effect of failing to integrate women into combat units. The thesis will focus on the effects that discrimination has on a group, and then apply those effects to an infantry battalion. In some instances the effect may be positive, and where this is the case ways of maximizing the positive effects while minimizing any negative ones shall be sought.

Significance of This Research

This research is significant to the NZDF in a number of areas. The question of whether or not gender integration should occur in combat units is moot. The question now should rather be, How will the NZDF make gender integration work without losing the strengths presently inherent in the force? The effects must therefore be identified, and mitigated where they are negative. Most importantly, an objective method for setting and measuring standards of effectiveness that are not associated with gender must be

developed. This study is of particular significance to women in the NZDF who are presently excluded from the combat arms and therefore a number of career possibilities. If an ill-conceived integration process is undertaken, the NZDF runs the risk of alienating women further by causing resentment and ill will within units, and this would ultimately be counterproductive. By establishing some broad principles for fair and equitable integration this can be avoided.

The execution of a well-planned integration policy, on the other hand, will result in greater effectiveness in NZDF combat units. The force will see a broader base of talent from which to recruit, and the best employment of that talent. Any possible resentment that the integration of women into a previously male environment may cause will be reduced. Ultimately, the force's current capabilities will be enhanced rather than degraded.

Assumptions and Definitions

This research rests on three key assumptions. The first of these is that a military force should reflect the values of the society that is funding it. This means that the NZDF is not above the accepted laws of the land, but must incorporate those laws into policy and practice. The second assumption is that discrimination is essentially a negative force. While it is accepted that there will be some issues that appear to make discrimination necessary on occasion, ways to negate those issues will be sought. The third assumption is that sexual harassment is fundamentally wrong. It is therefore accepted that harassment has a negative impact on individuals and by extension an organization, and assumed that every possible measure must be taken to ensure that it does not happen.

Throughout this thesis, the terms operational effectiveness, a general term, and combat effectiveness, referring to the operational effectiveness of a combat unit, will be used interchangeably.

Limitations and Delimitations

In the conduct of this research a number of limitations and delimitations will be identified. Limitations are those issues and areas within the topic to which detailed analysis will be limited. Delimitations are equally significant and are those areas that while related are not considered sufficiently relevant to the topic to be included in the analysis. Most of the limitations are applied in the interest of relevance to the central issue and include limiting the analysis to a New Zealand infantry combat force. In determining the significance of combat effectiveness, it is necessary to examine a number of different areas. It is not intended that these issues be examined with respect to air or maritime forces. In the interest of relevance, the discussion will focus on ground combat forces and specifically the Royal New Zealand Infantry Regiment (RNZIR).

This analysis must occur within the far broader context of New Zealand society and government, and some debatable issues will not be examined. Among these is the place of a military force in society, and whether it should reflect society's values or shape them. Whether or not gender integration should occur will not be discussed, accepting rather that it is inevitable.

In examining the Burton Report issues that apply to the NZDF at large will not be examined, focussing instead on those issues that will apply within the confines of an infantry unit. More attention will therefore be given to appropriate physical standards,

for example, than to an appropriate officer reporting system that affects the NZDF as a whole. It is not intended to address the area of harassment in any form, accepting that the prevention of bullying or harassment is a command responsibility.

Summary

In summary, it is intended that the effect that gender integration will have on the operational effectiveness of a ground combat force be determined. A review of documents will describe what the New Zealand Government requires of the NZDF, and a detailed review of the Burton Report will identify the relevant recommendations and principles. A model for measuring operational effectiveness, and detecting changes in that effectiveness will be developed. The effect of integrating women into a combat unit will be examined with a view to identifying positive and negative elements. The analysis will then work to maximize the positive effects and minimize the negative ones. The end result will be a sound understanding of the problems likely to be encountered and recommendations for resolving them. Solutions will include principles for formulating fair and equitable standards that enhance operational effectiveness without discrimination.

CHAPTER 2

LITERATURE REVIEW

Civilian values and military exigencies do not coexist easily, and when we sit down to make national security and military policy, we always end up toggling awkwardly in between. (2000, 118)

Stephanie Gutmann, *The Kinder, Gentler Military*

Much has been written about the role of women in military forces around the world. Needless to say opinions vary greatly, often from country to country, but also within each country. There is frequently a polarization of opinion between the public and the more conservative military hierarchy. Civil libertarians would like to see greater female involvement, and militaries around the world have resisted this. Examples of these stances will be given in this chapter. The current literature will be organized according to the thesis subordinate questions:

1. What is operational effectiveness?
2. What are the arguments for integrating women into combat units?
3. What are the arguments against integrating women into combat units?
4. What, therefore, is the most effective means of integration that best maintains or improves a combat unit's operational effectiveness?

What is Operational Effectiveness?

The first document that requires review is the *2000/2001 Purchase Agreement* between the Minister of Defense and the NZDF. This document serves to provide the Minister of Defense with information to assess the strategic alignment of NZDF outputs, but also verbalizes CDF's intent. Of particular value to this research are comments in his

introduction, which emphasize his desire to align the NZDF to the government's goals. The CDF makes it quite clear that the basis for credibility is operational capability and that the NZDF must still be able to operate effectively against a "resolute, regular joint force" (2000/2001 *Purchase Agreement* 2000, S1-2). It is also quite evident that the key end for the NZDF is to fight and win future conflicts (2000/2001 *Purchase Agreement* 2000, S1-2). The purchase agreement also expresses the requirement to promote an environment that promotes employment equity.

The purchase agreement contains the outputs that the government requires of the land combat force, including the infantry battalions. The Army is required to provide a force prepared for land operations across the entire spectrum of conflict. To make the force viable, personnel must "meet the collective training standards, experience levels and qualification requirements for military tasks" (2000/2001 *Purchase Agreement* 2000, S3-39). It follows, then, that an *effective* New Zealand land combat force will be effective in the full range of these operations. It will incorporate the principles of employment equity, but its primary role will be to defeat an enemy in battle.

Defense Force Order (Army) Volume 1 (DFO (A) Vol. 1) in draft expresses the Chief of General Staff's (CGS) vision for the New Zealand Army of 2015 and beyond. This, in conjunction with *Army's Ethos and Values*, provides guidance on how the CGS wishes the Army to shape itself for the future. An examination of these documents focuses on the NZDF policy at the Army level, and just what CGS is focusing on in the land combat force. Of note is that the CGS sees the Army of the future to include a higher proportion of women, possibly up to 50 percent (*DFO (A) Vol. 1, Foreword*). The

implication is that it will be necessary for operational reasons in the future to include women in combat roles.

United States Army Field Manual (FM) 100-5, *Operations*, provides a basis for a theoretical approach to assessing effectiveness. This doctrinal document identifies principles for success in battle and states that “Overwhelming combat power is the ability to focus sufficient force to ensure success and deny the enemy any chance of escape or effective retaliation” (FM 100-5 1993, 2-9). Four elements of combat power are identified. Maneuver is the first, which gives a force a positional advantage over an opponent. The second is firepower, which provides the destructive force capable of destroying an enemy’s ability and will to fight. Next is protection, which conserves the fighting ability of a force. The final element is leadership. In New Zealand doctrine this element appears as morale, which is often the product of good leadership (Manual of Land Warfare 1.1.1 1985, 3-2). It follows then, that a force able to maintain dominance in some or all of these elements will develop greater combat power and ultimately achieve success. This may well provide a qualitative approach to measuring combat effectiveness.

A number of documents exist that deal with defining and measuring operational effectiveness. *Measurement of Effectiveness in Marine Corps Infantry Battalions* is the product of independent research commissioned by the United States Marine Corps which addresses some aspects of combat effectiveness. It looks at the measurement of effectiveness on field exercises to determine whether a unit will be successful in battle and at some qualitative measures of effectiveness. Issues such as unit design, equipment, deployment, and training are examined. The research found that the most important

influence on combat effectiveness was the activities of commanders and that strong leadership was essential at all levels for effectiveness to be achieved. Adaptive behavior, or the ability to rapidly adjust to a new situation, was identified as a key characteristic of an effective unit. The creation of local superiority through the use of maneuver and fires is also cited as critical to the success of a battalion in combat. Unit cohesion was found to significantly increase the probability of combat effectiveness. Other elements, such as the effective use of intelligence, good communications, and a favorable local logistical situation were also significant, although less important than leadership or unit cohesion (Hayes 1978, 1-3).

There is no analysis of the relationship between leadership and cohesion in the measurement of effectiveness in Marine Corps infantry battalions, so this analysis must be gleaned from elsewhere. Morale is not specifically mentioned, although elements of morale can be identified in the text. Measurement techniques for leadership and cohesion are largely subjective, based on the opinions of leaders from both within and outside units.

“Unit Cohesion and Morale in Combat: Survival in a culturally and Racially Heterogeneous Environment” is a monograph by Major A. A. Cox which presents an analysis of historical units with high cohesion and morale. The 442d Regimental Combat Team, United States Marine Corps, and Waffen SS are cited as examples. The author concludes that these units shared certain qualities, including warrior spirit, unit loyalty and pride, a common goal, trust in each other, selfless service and self-sacrifice. He argues that these qualities add up to morale and cohesion, and that these form the basis for combat effectiveness (Cox 1995, 41).

The Study of Cohesion and Other Major Influences on Soldiers' and Unit

Effectiveness examines the effect of small unit cohesion on effectiveness. It is a report based on research in the Israeli Defense Force (IDF) and examines the effect of cohesion on vertical bonding, horizontal bonding, and organizational bonding in relation to unit effectiveness. The intervening effects of morale, professionalism, leadership, and stress are also analyzed. The results indicated a strong correlation between unit cohesion and unit effectiveness, and revealed that morale and stress were the two most significant intervening factors (Yagil 1990, 81).

On Infantry, by John A. English, is a historical account of the development of infantry fighting tactics, techniques, and procedures. It examines what makes infantry successful on the battlefield and identifies characteristics common to successful infantry units. A key theme throughout the book is the brutal nature of infantry combat that inevitably results in sheer hard physical work. Even the most modern advances in technology have not reduced the requirement to fight at some stage on foot. This is particularly so in restrictive terrain.

Major V. J. Saimons describes a model for cohesion in a monograph of 1992 and relates this cohesion directly to unit effectiveness. She identifies seven elements to unit cohesion: a definite mission, interdependence between individuals and parts of the organization, training, unit identity, personnel stability, communications, and leadership. She goes on to compare military service with the fire service or police force, on the basis that they all share a need for courage, facing danger, and therefore cohesion. She concludes that because women have had little apparent effect on cohesion in those organizations, the same should apply to combat units (Saimons 1992, 37).

Saimons then examines the integration of black soldiers into the US military, on the basis that it involved another minority group seeking equal rights and that the argument was intensely emotive and the result of political pressure. She demonstrates, quite correctly, that the arguments against integrating black soldiers were groundless and overcome with training and strong leadership. Because of the similarities, she then concludes that the same groundless objections to women serving in combat will be overcome. She asserts that the elements of cohesion are too complex a phenomenon to be able to isolate one factor, such as gender, as a determining factor. Her paper concludes that fears of gender integration adversely affecting unit cohesion and therefore effectiveness are groundless (Saimons 1992, 38).

In summary, then, effectiveness would appear at its most basic level to be the ability to defeat an enemy in combat. For a light infantry battalion this means a physical fight which may well degenerate to hand-to-hand combat with a determined enemy. An effective infantry unit must therefore possess superior ability to maneuver, apply destructive fires, and protect itself, and also possess superior morale to an enemy. All indications are that the most important of these elements is morale, and literature identifies a number of components to this. These components can be simply summarized as leadership, cohesion, training, and communication, all of which are interdependent.

What are the arguments for integrating women into combat units?

The key document in support of gender integration in the NZDF is the Burton Report. The aim of the report was to “identify the philosophy, policies and practices which underpin progress within the NZDF towards the integration of women at all levels

and in doing so to identify any cultural, social or institutional barriers which impede the progression of women within the NZDF on a merit basis” (Burton 1998, xi). Dr. Burton begins by examining attitudinal barriers to integration within the NZDF. The most prevalent barrier is identified as the application of male norms and standards, which are not necessarily essential to job performance. She notes that “the assumption seems to be that equality means the same and the same standard means male” (Burton 1998, 9). She then demonstrates that this attitude disadvantages women, who may be quite capable of performing in a job to the required standard, yet have difficulty reaching an arbitrary male standard. This is particularly applicable in the area of physical strength and endurance.

Dr. Burton identifies as essential the separation of age and gender based physical fitness standards from “appropriate physical standards for employment in certain trades and areas of work” (Burton 1998, 21). This certainly has application in a light infantry unit, where there is a requirement to carry heavy loads of ammunition, rations, and equipment, sometimes over a great distance under time constraints. The ability to do this is not clearly tied to a fitness test with a run and some exercises. She goes on to note that “anti-discrimination law does not require any organization to employ someone who is unable to do the job” (Burton 1998, 21). She also notes, quite correctly in my experience, that some women are able to meet high physical standards, and some men are not, so tying policy to gender may be unnecessarily discriminatory. She goes on to describe the effect that load carrying equipment and clothing designed for men has on women. She identifies the need to redesign some items, such as packs, to better fit the female form to prevent injury or low performance (Burton 1998, 27). This argument applies equally to

men, and in fact some items have already been redesigned for people of smaller stature. The New Zealand Army continues research and development in this area.

Next Dr. Burton identifies family-friendly policies and practices. She sees this as an issue because of the increasing number of women with families employed within the defense force. The key here is to allow flexible work practices to ensure that families do not suffer as a result of military duties. Examples include flexible work hours, part-time work, and careful planning of after-hours duties. Another important issue is the provision of childcare to service members who need it. This is seen as especially significant to women, who are more likely to have a working partner and therefore require the service (Burton 1998, 38).

The Burton Report then examines the Human Resource Management (HRM) policies and practices currently in effect in the NZDF. Specifically, Dr. Burton looks at some of the policies and practices which indirectly affect women but which do not necessarily deliberately or obviously affect women--the policies and practices which are, on the face of it, gender neutral, appear absolutely fair, apply to everybody equally, but disadvantage women--or people with family responsibilities (Burton 1998, 81).

The first of these policies is requiring command experience in an operational unit for appointment to a higher rank. The second is a “trait” approach to personnel reporting as opposed to a “merit” or more objective approach, which is seen to disadvantage women in a male-dominated environment. Qualities, such as leadership and loyalty, are examined to demonstrate that they mean different things to different people and are very difficult to measure uniformly or objectively.

Dr. Burton concludes that strong leadership will be essential to effectively integrate women into every area of military employment. She states that commanders must be held personally accountable for ensuring that all of their subordinates are treated fairly and equitably and that this includes integration of women. She advocates harsh disciplinary action for those who practice sexual harassment, as well as for those who are aware of it and fail to take appropriate action. She also indicates that there will be a requirement to factor gender into decision making for practical reasons, even if the ideal would be to avoid this:

If, for example, as others well recognize, a pyramid of women is required (that is, higher proportions of women in more senior ranks)--not only to support women further down the ranks but to keep the chain of command in touch with women's issues--then this should be an explicit goal and strategies should be directed towards achieving it. *There is no point in insisting on the ideal when the effects of operating according to this ideal are counter-productive in relation to unit performance and cohesion* [italics mine]. (Burton 1998, 143)

This would appear to be endorsing positive discrimination in favor of women, and the directive issued by CGS takes this approach. The effect that this will have on unit cohesion will be one of the subjects for analysis in chapter 4. The importance of gathering accurate data is also stressed. This would include examining past achievements and failures to ensure that the appropriate lessons are learned.

Of greatest significance are the recommendations made at the end of the report. These are intended to offer practical advice on modifying policy and practice to eliminate discrimination within the service. The recommendations significant to a light infantry unit can be summarized as follows:

- a. That . . . plans be developed for those units and categories of members where positive attitudes towards women in the military have been identified as particularly difficult to achieve.

- b. That NZDF. . . following intensive education efforts and in consultation with women, determine the special initiatives to be developed to provide women with the necessary support to enhance their levels of comfort and feelings of belonging in the military setting.
- c. That a clear distinction be retained between appropriate physical standards for employment in certain military trades and areas of work, on the one hand, and age- and gender-related standards of physical fitness on the other.
- d. That strengths [*sic*] and endurance standards be linked to selected critical tasks within separate military occupations.
- e. That even where job-related physical standards are established, training programs specifically designed to enable individuals to meet those standards are developed.
- f. That new equipment be designed for use by the full complement of female and male personnel.
- g. That an audit of clothing and equipment be carried out in consultation with personnel to establish what remaining modifications need to occur.
- h. That a formal policy be developed whereby a range of flexible work arrangements are available to be taken up by civil and military personnel where the work environment allows for it.
- i. That the NZDF develop policy on part-time work. . . .
- j. That Commanding Officers . . . who have abused their authority, failed to ensure a safe and equitable command environment or otherwise interfered with the complaint process, be faced with disciplinary action which could include removal from command.
- k. That a clear expression of what Equal Employment Opportunity (EEO) means for the NZDF and for each of the services be articulated.
- l. That positive actions be developed to ensure: that women are not unnecessarily disadvantaged in their career progression as a result of their exclusion from direct combat roles; . . . sufficient numbers of women reach the rank or grade levels where they can provide role modeling and support to other women and where they can contribute to desired cultural changes. . . (Burton 1998, 231-243)

The effects of these recommendations will be examined in more detail in subsequent analysis.

New Opportunities for Military Women presents the results of a 1997 study of the impact of gender integration on the readiness, cohesion, and morale of the US military. The research is based on a comprehensive survey of US military personnel across all services and rank levels. The report concludes that gender integration has a relatively small effect on unit cohesion when compared with leadership and training (Harrell and Miller 1997, 99). The authors found that the effects were in fact invisible in units where cohesion was high. The report identifies four attributes of readiness: availability, qualification, experience, and stability. It concludes that gender integration has no major effect in any of these areas. Some effects, such as that of pregnancy on availability, were identified and assessed as no more significant than any other factor. Cohesion is broken into two areas. Social cohesion is defined as the bonds of liking and friendship within a group. Task cohesion is the will of a group to achieve an objective in a unified manner. The report concludes that overall the inclusion of women in a group does not affect this negatively and in fact can enhance the cohesion of a group. There were a few examples of negative influences. These occurred when structures emphasized gender differences or when fraternization interfered with work in a unit.

The report also describes the effect of gender integration on morale and concludes that it is not among the primary issues affecting morale. Two exceptions were identified. The first is when sexual harassment occurs. The second is application of a double standard, especially when based on gender issues (Harrell and Miller 1997, 100).

Overall the report presents a well-balanced picture of US military attitudes in 1997. It identifies the fact that there are no absolutes and that gender integration does have an effect on an organization that must be managed. It also emphasizes the greater

effect of other factors, such as leadership and training, which are perceived as being far more influential. This adds weight to many of the concepts expressed by Dr. Burton, who also considers gender integration to have less of an effect on cohesion than strong leadership.

J. Michael Brower, in a 1996 essay for the United States *Armed Forces Journal*, concludes that “when a woman is correctly trained, she can be as tough as any man.” (Brower 1996, 13). His article suggests that the reasons currently used to exclude women from combat are invalid and that women can perform as capably under arduous conditions as men can. He cites the results of two studies. One was a 1995 training study conducted by the US military. It involved a demanding buildup of civilian women for physical endurance tests. An overall dramatic improvement was recorded, and the author implies that this proves that women are as physically capable as men are. The second study, which was conducted by the Ministry of Defense in the UK, concluded, “women can be built up to the same levels of fitness as men of the same size and build” (Brower 1996, 13).

The key point to Brower’s essay is that women are disadvantaged in military circles by not being able to perform combat jobs. He believes that they do not gain the proper credentials and experience for top promotions because they are excluded from infantry combat units. He therefore suggests that if women are as physically capable as men, then they should be allowed to compete on an equal basis for the top jobs. The argument appears well balanced, although it is difficult to tie to the light infantry, as the specific nature of the physical testing is not examined in sufficient detail.

Women Warriors, by David E. Jones, traces the history of women in battle from prehistory to modern times. A cultural anthropologist, Jones analyzes the presence of martial women in cultures as diverse as Arabic, Greek, Khmer, Indian, and Russian. He concludes that women have always played a vital part in the military, including in combat roles. He believes that recent male-dominated recording of history has distorted the facts and that given appropriate training women are just as capable as men in facing the hardships of battle (Jones 2000, 251).

Francine D'Amico, in her essay "Women at Arms: The Combat Controversy", argues that women are already combatants, so an exclusion policy is irrelevant. She considers the demarcation between combat and noncombat jobs to be irrelevant on the modern battlefield, as troop mobility and weapon ranges increase. She further argues that women are disadvantaged by not being able to serve in the same range of employment as men are. This is especially the case for career women whose promotion is impeded by not having served in combat. She then goes on to counter the arguments against women serving in combat roles. She divides these arguments into four categories: physiological, psychological, military-strategic, and sociological-political (D'Amico 1990, 6).

D'Amico first counters the physiological objections by pointing out that some women are as capable as men in physical tasks and therefore should not be disadvantaged. She also foresees a decrease in the importance of physical strength as technology increases weapon ranges and reduces weight. She proceeds to counter psychological objections by stating that the incorporation of less overtly aggressive women into combat roles may reduce the chances of conflict ever arising. She suggests that the military-strategic arguments against integration are irrelevant and based on male

bias, claiming that the problem “is not with women in combat but with men’s attitudes to women in combat.” She also concludes that the sociological-political arguments are now outdated, and designed to maintain the traditional oppression of women (D’Amico 1990, 11).

D’Amico concludes that women are ready to fight if exclusion policies are dropped. She believes that they are disadvantaged if they are not permitted to perform in combat roles and that there are no valid reasons why they should be excluded from combat service (D’Amico 1990, 13). In this she conforms to much of the opinion expressed by Burton in her report on the NZDF. While the argument is emotive in some areas, such as the oppression of women in society, much of it is applicable in the NZDF environment.

US Army Captain M. Finch served as a commissioner on the 1992 Presidential Commission on the Assignment of Women in the Armed Forces. She comments independently of the commission, largely it would appear, as a dissenting voice. Her experience with the commission was apparently frustrating in the extreme, and she comments on the lack of consensus on most issues discussed by the commission. She identifies six key issues that were uniformly contentious. These were women as prisoners of war, physical strength and endurance limitations, public opinion, cohesion, pregnancy, and conscription (Finch 1994, 3). A relationship between these factors and the categories identified by D’Amico can readily be seen.

To those that argue that women are more likely to be mistreated as prisoners of war she responds that women are already exposed to those risks even in noncombat jobs and that in any case that is a risk that responsible women should be able to choose to

accept. She accepts that women have different strength and endurance capabilities to men, but argues that anyone who can meet a job requirement should be able to compete for that job. She presents the results of surveys conducted for the commission that would indicate that the public would be no more averse to women casualties than men and argues that this invalidates an argument based on losing public opinion (Finch 1994, 6).

Finch addresses the matter of cohesion in two areas. She identifies that sexual relationships within a unit could be destructive to cohesion and therefore should be prevented or discouraged. She also identifies that leadership and training are the key factors to ensure a high degree of cohesion. She believes that the likelihood of women being unable to deploy due to pregnancy is not significantly greater than for men as a result of injury or disciplinary reasons. Finally, she argues that women should be liable for conscription just as men are, in spite of the commission's recommendation to the contrary. Finch believes that no allowances should be made in this, or any other area, in the interest of fair and equitable treatment for all (Finch 1994, 10).

Major W. W. Smith and Lieutenant Commander D. L. Mowery completed a paper in 1992 based on the premise that women would soon be included in US combat units. They conclude that this will affect the way operations are planned and executed and will necessitate change in the areas of logistics, policy, and training. They foresee an effect on cohesion, especially if harassment and discrimination were allowed to exist (Smith and Mowery 1992, 26).

Smith and Mowery identify strong leadership as the key to successful integration. They believe that leaders must develop an appropriate climate within their units and ensure that jobs are filled by appropriately qualified people. They see absentee issues,

such as pregnancy, as nothing more than a command and planning problem. They conclude that the integration of women into combat units will cause some problems, but that these problems will not be insurmountable (Smith and Mowery 1992, 27).

Female Soldiers: Combatants or Noncombatants? edited by Nancy Loring Goldman, offers a series of historical and contemporary perspectives on the issue from around the world. The various essays offer arguments for and against women serving in combatant roles.

Three trends emerge in a preliminary analysis of the arguments for integration of women into combat units. The first is that of fairness and equity. Most of the arguments in this category rest on the assumption that suitably qualified people, regardless of gender, should be able to compete for a particular job. Many argue that being unable to compete for combat-related employment unfairly disadvantages women. The second trend is to argue that the inclusion of women in any force will increase its effectiveness. Doubling the pool of available talent should in theory increase the quality of an average recruit and add to the skills available to a commander. The third trend is simply a rebuttal of the arguments against integration of women.

What are the arguments against integrating women into combat units?

In *The Kinder, Gentler Military*, Stephanie Gutmann claims that women cannot perform as effectively in combat-related roles because of physical and sociological differences. She has a background as a journalist and has based her extensive research on interviews with a broad sample of military personnel. She believes that military readiness has been sacrificed for political correctness by using “quotas, double standards

and coercive policies” (Gutmann 2000, 278), and that this will lead to disaster on the battlefield.

Perhaps the key to her argument against integration of women into some units is that military necessity must take a priority over individual rights. She says, “civilian values and military exigencies do not coexist easily, and when we sit down to make national security and military policy, we always end up toggling awkwardly in between.” (Gutmann 2000, 118).

This is certainly a powerful argument, and one that is reinforced in many areas of military life. Basic human rights are curtailed in many other areas in the interest of effectiveness. One only needs to look as far as the various military justice systems to see that soldiers accept a degree of restriction that would be unacceptable in most walks of life. Ms. Gutmann notes that women are frequently unable to deploy with military units because they are pregnant or because they are single parents and that this degrades the capability of the units to which they belong. This should be considered a management problem rather than a reason to exclude women from combat.

One reason cited for the increase in women in the forces is pressure from political groups rather than any real desire among women to be integrated further. Ms. Gutmann claims that this imperative “mandates expanding gender integration until the force looks ‘more like America’” (Gutman 2000, 12). She goes on to demonstrate how this ideal is desirable on the surface but difficult to achieve in practice, particularly when there are some unquestionable differences between men and women. The most easily demonstrated of these is in physical strength, and she cites examples of women in a variety of jobs unable to keep up with their male counterparts. This argument is

especially applicable in a light infantry environment, where many men lack the requisite physical strength. It does fail, however, to account for those women who may be able to meet the standard and for whether they should still be excluded. While Ms. Gutmann presents an argument against gender integration, the bulk of her evidence is based on cases where a poorly conceived integration process has gone wrong. Many of the errors she has identified are fixable and will be examined in the detailed analysis.

The Marine Corps Gazette has carried a number of articles, mostly vehemently against employing women in combat roles, or in favor of discrimination on the basis of gender. Major General G. A. Deegan argues that women should be included in a combat theater, but because of a difference in physical capability and for sociological reasons, should not be employed in infantry units. His first point is that the majority of women lack the physical abilities to be infantrymen. He is concerned that even those with the ability will require an inordinate amount of time to maintain their fitness and therefore lack balance in training. His second issue is a social one. He argues that men naturally tend to be more protective of women and that this would have an adverse effect on unit cohesion. He considers the Spartan conditions, under which infantrymen often operate, inappropriate for women. His final point concerns the development of a “warrior spirit.” He identifies the necessity to train recruits to perform unnatural tasks, such as attacking an enemy position, and he identifies male bonding as an essential element of this conditioning (Deegan 1992, 44). The substance of this article is mainly opinion and is largely based on anecdotal evidence. The problems are all presented as insoluble, when, in fact, they may not be. Dr. Burton argues that many of these problems are based on a

male perception of the effects of integration and can be addressed by effective training and strong leadership (Burton 1998, 238).

The argument is taken up by Colonel J. W. Ripley, who states that women normally lack the combination of strength, courage, and suppression of emotion that is required on an hourly basis on the battlefield. He also asserts that the only women who want to serve in the combat arms are self-serving careerists who are only interested in qualifying for promotion. He concludes his argument with a discussion of the mistreatment of women captured by enemy forces and of the fact that women should not be subjected to such atrocities. The key to his argument is that female soldiers do not fit into the “classical Western idea of womanhood” (Ripley 1992, 37). The argument is very emotive and focuses on the atrocities committed by enemy soldiers on US women in the past. There is no consideration given to like atrocities performed on men, and this bias is evident throughout the article.

In a subsequent article, Major P. H. Maubert argues that gender integration is a manifestation of political correctness rather than of equity. He claims that impartiality in combat decision making will be affected by sexual attraction in an integrated unit (Maubert 1993, 39). Once again, there is no examination of how a problem like this may be solved. He also identifies problems in the consistent treatment of women, particularly when pregnancy is involved. The thrust of his argument is that if women wish to be eligible for combat service, then they should equally be liable for combat service. The extension of this is that if they are assigned to a physically demanding combat job and are unable to meet the standard, then they should be held as accountable as a male

counterpart. There is a certain logic to this argument, as long as the physical standards are objectively derived from combat requirements rather than arbitrarily determined.

Major T. P. Brennan, also of the United States Marine Corps Reserve, argues that the military is sacrificing military effectiveness for political correctness. He identifies particular problems in training standards, which he believes are degraded by the inclusion of women. He claims that physically difficult training has been diluted or removed to accommodate women and that this has a detrimental effect on men involved in the same training. He also identifies that “preferential treatments will create resentment, disrupt morale and affect the discipline and combat effectiveness of [women’s] units.” His solution to this is excluding women from the training (Brennan 1994, 53). No consideration is given to ensuring that the training is tied to military requirements and that all recruits are held to an appropriate standard.

Captain J. F. Luddy further asserts that the integration of women into combat units hinders the inculcation of a warrior spirit into fighting teams. His premise is that combat is a masculine activity and one for which women are entirely unsuited. He argues that acceptable values in society are not necessarily appropriate to a military force, especially when they affect cohesion or morale. He considers women in general to be incapable of the brutality required for combat and to hinder the male bonding he considers essential to building a cohesive force. He assumes that this necessary brutality is a masculine trait and that it is therefore easier to train men for combat than women (Luddy 1994, 56). The validity of this assumption will be examined in later chapters.

Major M. I. Alderman, in his monograph “Women in Direct Combat: What is the Price for Equality?” undertakes a theoretical examination of the elements of unit cohesion

as they relate to combat. He identifies three aspects to cohesion. The first of these is primary group bonding, or the bond that develops between individuals at the team level and forms the basis of both teamwork and unit morale. The second is system bonding, which he defines as the integration of man and weapon to form an effective unit. The third is organizational bonding, which is the ability of a larger organization to function as an integrated whole. He argues that degradation of any of these elements will result in a corresponding degradation in unit cohesion, ultimately resulting in defeat in battle (Alderman 1993, 42).

Alderman then goes on to identify the fact that statistically women are physically less capable than men. He concludes that allowing women to serve in combat units will degrade system bonding, because women are not strong enough to carry sufficient ammunition or handle some weapons, and primary group bonding, because of male resentment toward this physical difference. This is a far more objective and analytical approach than some of the previous literature. It does, however, gloss over two areas. The first is that many men do not reach the physical standards required of combat, and the second is that some women do. He uses the Army Physical Fitness Test (APFT) as a measure of physical ability, but does not relate this to the battlefield requirements of a soldier (Alderman 1993, 30). He concludes that allowing women to serve in direct combat units would reduce cohesion and therefore combat effectiveness.

In his book *Weak Link: The Feminization of the American Military*, Brian Mitchell examines the integration of women into each of the US service colleges. He concludes that women have degraded the quality of these institutions and extrapolates this to the rest of the military. He argues that because of physiological, psychological,

and social differences, women cannot perform to the same standard as men (Mitchell 1989, 190). If this were true then the effects on combat effectiveness would be substantial in a light infantry unit.

Obviously then, the arguments against integration are many and varied. It would appear from the literature that they can be divided into four categories. The first of these is physical ability. Much of the argument centers on the claim that women are less physically capable than men and should therefore not be employed in areas where physical strength is necessary. The second is psychological issues. Many argue that women are psychologically unsuited to the stresses of prolonged combat. The third category is societal perceptions, and many argue that society is not yet ready to accept women in a combat role for a variety of reasons. The fourth category is organizational problems. Arguments abound that the organizational changes necessary to accommodate women will reduce the effectiveness of combat units. Many also argue that the presence of women in a male-dominated environment will impede male bonding, therefore cohesion, and therefore operational effectiveness.

What is the most effective means of integration that best maintains or improves a combat unit's operational effectiveness?

Little has been written on how to integrate women into a combat unit, let alone a light infantry battalion. Most of the discussion has focused on whether or not integration should occur, not how to make it work. A number of writers have, however, touched on the subject in passing.

Major L. W. Knotts completed a monograph in 1996 titled “Infantrypersons” in which he argues that some women are able to and want to serve as ground combatants, and therefore they should have that opportunity. He based his research on a survey of some 80 female students at the Command and General Staff College, and discovered that 21 percent of respondents would have considered an infantry career, while 57 percent considered that the infantry should be open to women. He also noted an overwhelming aversion to any accommodation being made for women, particularly in physical requirements. He interprets these figures as an indication that women want to serve in combat jobs (Knotts 1996, 22). This is accepted, but the roughly 80 percent of respondents who did not want to fill these appointments should also be acknowledged. He predicts a quota being placed on the army in the future to ensure compliance with a new integration policy and cites the Canadian Armed Forces as an example of a military force where this has occurred and apparently failed. He concludes that physical screening would be necessary to ensure maintenance of combat effectiveness and that this screening may well be separate from a more general test of physical fitness (Knotts 1996, 32).

CGS Directive 39/00 establishes New Zealand Army policy on the integration of women into combat trades. It gives the following mission: “The NZ Army is to continue ongoing Equal Employment Opportunity (EEO) training and related activities in 2000/2001 in order to ensure the successful integration of women into combat trades” (CGS Directive 39/00 2000, 2). The directive then identifies a number of preparatory steps that need to be taken prior to introducing women into units. Accommodation and workplaces needed to be prepared to ensure that appropriate levels of privacy were

achieved while still enhancing team cohesion. Trade requirements and equipment required review to ensure that they were linked to operational requirements. Soldiers and commanders must be prepared, and the directive identifies that the problems with integration of women are generally a male concern rather than a female one. It states the need for some cultural change and notes that this is particularly so at the lowest levels of leadership where the effects of integration will be most keenly felt. It goes on to state the need for an appropriate framework of infrastructure and policy to support the integration process. Key to implementing the directive is a mentoring system, achieved by ensuring a spread of genders throughout the ranks.

CGS proceeds to direct all commands in the Army to conduct individual training in EEO. The directive establishes a Senior Command Equity Course, in which potential unit commanders cover gender issues and their effect on operational effectiveness. The EEO training is to be included in the formal courses from recruit through to junior officer level. These are all general steps to be taken across the Army; additional actions are directed for combat trades and units.

The directive states that internal (to the Army) recruiting of women to combat positions will commence on 1 July 2001 and that external recruiting will commence in January 2002. This is to allow time for some of the necessary preparation to occur. This preparation includes an audit of workplaces and accommodation to determine what is suitable for gender integration and to identify what work is necessary. It includes the completion of a review to ensure that trade competencies are based on combat requirements. A training package for all ranks on leadership in a mixed gender environment is to be developed and delivered throughout the Army. The final

preparatory measure is the active encouragement of “female soldiers and NCOs to join the combat [branches] prior to February 2002” (CGS Directive 39/00 2000, 7).

While the directive may provide a broad framework for integration, it leaves much of the work to unit commanders. The only issues that have been identified or addressed appear to be privacy and harassment, and as already seen there are many others. Issues such as recruitment quotas, physical training requirements, and distribution of women within units, will all be significant at the lower levels of command.

The key theme throughout all of the available literature was that no compromise of combat effectiveness should be made to accommodate women in combat units. This was universally expressed by both men and women. A number of issues must be addressed. The first is ensuring that physical differences between men and women do not reduce effectiveness. Another is privacy. A third is harassment. A number of options for integration are evident. One is to introduce quotas, to ensure that the military is complying with directives. Another is to introduce women into every level of a unit simultaneously to establish a support hierarchy immediately. Alternatively, women could be introduced at the lowest commissioned and noncommissioned ranks in combat units, and the support structure developed subsequently. A great deal of additional training will be required for the women joining units as well as the men already serving in them. Disciplinary issues must also be addressed if it becomes apparent during the analysis that these will have an effect on cohesion.

Summary

In summary, plenty has been written on whether or not women should serve in combat. Very little, however, has been written on how to integrate women into a combat unit. It is now necessary to develop a model for combat effectiveness based on the elements identified in this chapter. The effects of each of the arguments for and against integration on that model will then be identified. This will allow the development of a set of principles for successful integration. The methodology to achieve this will be outlined in the following chapter.

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CHAPTER 3

RESEARCH METHODOLOGY

Masters of difficulty and close terrain, infantrymen are essentially foul-weather warriors; horses may flounder, tanks may grind to a halt, and aircraft may fail to fly, but the foot soldier plods ever on. (1981, 223)

English, On Infantry,

The purpose of this chapter is to describe the methodology that was used to analyze the data and develop the conclusions found in this thesis. In doing so the logical relationship between the thesis question and the subordinate questions at each level will be examined. The means by which evidence was discovered during the research, and the ways in which those means were implemented will also be explained.

At the commencement of this research in July 2000, it was apparent that the NZDF would eventually integrate women into every field of military employment. By December 2000 the first woman was scheduled to graduate from officer training into the infantry corps (branch), and to be posted to a light infantry battalion as a platoon commander. This was occurring in a climate of some resistance from men in the infantry, albeit resistance in the form of skepticism rather than active opposition. It was quite apparent then, that some form of program for effective integration should be developed. The aim therefore, was to develop a set of principles by which such a program could be guided. This aim led directly to the thesis question.

The key to the initial research was the subordinate questions. The first step was to develop a model for assessing operational effectiveness. This model was not necessarily quantitative in nature and had to be applicable to a light infantry force. A qualitative

model appeared to be more useful, because assessment of change did not rely on some arbitrary method of measurement. It was therefore determined appropriate to develop a set of characteristics present in an effective unit and in effective soldiers. These characteristics needed to be easily identifiable, and any change in them had to be visible, though not necessarily directly or accurately quantifiable. A closer examination of these characteristics reveals that they fall quite neatly into the categories of the elements of combat power: firepower, maneuver, leadership and protection (FM 100-5 1993, 2-9). For New Zealand purposes, the broader term of morale was substituted for leadership, acknowledging that there is some overlap between the terms. This allowed the application of the doctrinal model of combat power to an analysis of unit effectiveness.

Firepower appeared simple to measure and to detect change within. Examining marksmanship results and assessing weapon-handling skills could make some objective measure of this at the individual level. Further assessment of the ability of a force to apply fire could be achieved by assessing unit live-fire exercises.

The ability to maneuver also appeared measurable. In the case of light infantry this means the ability to cover ground on foot. This can be measured objectively by assessing the individual's ability to walk with a combat load under time constraints. This requires further assessment of what constitutes a realistic combat load and of what time constraints are appropriate. The future motorization of the New Zealand infantry battalions adds another dimension to assessing the ability to maneuver.

The ability to protect oneself on the battlefield was less simple to define or measure. At one end of the spectrum it involves arduous physical work (digging), while at the other, protection may involve the employment of sophisticated technology or subtle

tactics. Fields as diverse as dispersed operations and information protective operations needed consideration.

The fourth factor, morale, was far more difficult to define or to measure. Essentially an abstract concept, morale has no means of objective or quantitative measurement. Perhaps the best definition is the will of a force to fight and win. A number of contributing functions can be identified. The first of these is social cohesion or the tendency for a group to work and play together. The second is task cohesion, or the ability of a group to work in unity towards a common task. Another factor is leadership. It was then necessary to examine the effect of integration of women on each of these characteristics.

To do this it was impossible to use primary sources, as none appear to be available. New Zealand has never before attempted this degree of integration, and forces with similar cultures, such as those from Australia, the United Kingdom, or the United States, are equally divided along gender lines. There is, however, substantial debate in all of these forces about the advantages and disadvantages of such integration. It therefore appeared possible to examine each of the arguments to assess their validity in a New Zealand context. To impose some order on what appears to be a chaotic debate, it was decided to separate the arguments for and against integration.

It was possible to further group the arguments for integration into three categories. The first category is largely based on the necessity for fairness and equity in a military force. The general thrust of it is that women have as much right to serve in a combat unit as anyone else, so policy should not prevent that. It includes such factors as the effect of combat service, or the lack of it, on career progression. Whether or not

gender is a suitable basis for discrimination is another important factor. Many of the arguments in this category do not relate directly to combat effectiveness, although a subjective analysis of their effect can be completed.

The second category argues that the inclusion of women in a military force improves its effectiveness. This is by doubling the recruiting base and by introducing greater diversity of experience and leadership into units. It is argued that women are as capable as men at most military tasks and more capable in some. These arguments needed to be applied to the model already developed for combat effectiveness. It proved possible to assess each argument in this category against each of the characteristics of an effective force.

The third category presents counterarguments to those against integration. These are generally a direct rebuttal of arguments against integration, and are therefore better assessed directly against their opposing arguments than against the combat effectiveness model. This required the weighting of the importance of each argument and determining which was the more valid.

The arguments against integration can also be divided into subcategories. Four criteria were selected to categorize them as trends began to develop in the material under review. These were physical ability, psychological issues, societal perceptions, and organizational problems.

Much of the argument against integration centers on a perceived difference in the physical ability of men and women. Most people accept that there is a difference, and the proponents of this view would argue that an inferior physical ability degrades operational effectiveness. This perceived difference manifests itself in lifting tasks and in other

arduous physical tasks, such as route marching or digging. An assessment of the validity of this argument is possible, and a number of counterarguments can be identified. Key among these is the fact that generalization is inappropriate and that if an individual woman is physically capable of combat then she should not be denied the opportunity.

A second branch of the argument suggests that women are less psychologically suited to combat than men. If that were the case, then the inclusion of women in a combat force would degrade its capability. Once again the validity of this argument was examined, this time with reference to some broader psychological data. The effects on each of the elements of combat power could then be assessed.

Many of the perceptions in society at large have a bearing on the argument against integration. Key is the traditional perception of the role of women in society. These perceptions were not examined except where they were directly influencing the argument, accepting instead that equity is a positive characteristic. Arguments in this category include, for example, public reaction to the abuse of female prisoners of war. Another is adding the element of sexual attraction to a combat situation. The effects of these factors could then be assessed on the characteristics of an effective force.

Organizational issues are closely tied to the societal issues mentioned above. The argument here centers on the belief that a combat organization would have to change to accommodate women, and that this change would degrade effectiveness. Examples of these changes are to sanitation facilities or to accommodation arrangements, privacy being the key issue. Once again it was possible to assess the impact of these issues on each of the components of operational effectiveness.

As this analysis progressed, a number of trends emerged. In essence, it was discovered that some of the arguments were less valid or deserved less weight than others. It was also evident that many of the arguments for integration have been applied to the present New Zealand situation, without necessarily taking into account all of the arguments against integration. This is not to suggest that integration should not occur, but that consideration needs to be given to the negative factors to minimize their effect on future operations.

Some previous attempts at integration in the military forces of other nations were examined, and problems were identified in their execution. As each of the problems was examined, some solutions presented themselves. It therefore became possible to identify a list of methods to avoid and to identify plans to resolve some perceived problems. As a result of the analysis, it was possible to identify these solutions in three areas: training, organizational issues, and integration procedure. Training issues apply equally to men and to women, albeit in different areas and subjects. Factors affecting organizational issues include the placement of women in the unit and the role of leadership at each level. Integration procedure is the series of steps, and the constraints, used to complete the integration process. An example would be the application of a quota system to the recruiting process.

The solutions identified during the analysis in chapter 4 form the basis of the recommendations in chapter 5. It is considered that a well-planned process employing the principles developed during the analysis will ensure a smooth integration of women into combat units with minimal degradation of operational effectiveness.

CHAPTER 4

ANALYSIS

“I want ‘em to be able to march 20 miles, the last five at double time, and then be ready to fight.” (1981, 149)

General “Chesty” Puller, 1953. In English, *On Infantry*

The purpose of chapter 4 is to analyze the data gathered earlier, using the methodology developed in the previous chapter, to answer each of the subordinate questions to this thesis. The first objective is to develop a model for combat effectiveness applicable to a light infantry battalion. The various arguments for and against gender integration will then be applied to this model to determine their effects. Positive effects will be captured and examined to determine ways of enhancing them. Negative effects will be examined to determine ways of eliminating them. These *ways* will form the basis for an effective integration plan. As in previous chapters, the analysis will follow the construct of the four subordinate questions.

What is operational effectiveness?

In its broadest sense operational effectiveness is the ability of an organization to achieve the goals set for it. In the case of the NZDF, this is primarily to fight and win a future conflict against anything up to a resolute, regular joint force. As it is included in the Purchase Agreement, effectiveness also includes the requirement to promote employment equity. For the Army this means it must be able to operate in the full spectrum of conflict and be capable of defeating an enemy in battle. The infantry

battalions must therefore be able to “seek out and close with the enemy, kill or capture him, seize and hold ground and repel attack by day or night, regardless of season, weather or terrain” (Manual of Land Warfare 2.1.1 1983, 1-1). This must occur under the rigors of combat, in uncertain conditions and in a brutal, stressful, and physical environment.

Above all else the infantry soldier must be prepared to fight an enemy. While technology is making rapid advances in weapon ranges and precision, reducing the incidence of hand-to-hand combat, that skill is still a necessary last resort. Combat still comes down to a contest for physical and moral domination of an opponent. An effective infantry unit, therefore, will exhibit the characteristics that best allow it to defeat an enemy in battle. Doctrine provides a means of assessing these characteristics, and that means is an analysis of combat power.

Combat power, as has been seen, is the ability to focus sufficient force to ensure success in battle. An effective infantry battalion will therefore be able to generate greater combat power than an enemy force by concentrating greater firepower, dominant maneuver, more effective protection, superior morale, or any combination of these elements. A brief analysis of these elements as they apply to a light infantry battalion is necessary prior to assessing the effect of integrating women will have on each element.

A battalion develops fire by the application and control of the effects of its various weapons. At the lowest level, a section commander applies the fire of two light machine guns. At platoon level, the commander controls the fire of his three sections, but has no other significant integral firepower asset. A company commander has greater flexibility, with heavier machine guns and antiarmor weapons to employ in addition to his three platoons. At the highest level, the battalion commander coordinates the fire of

his integral mortars, antiarmor weapons, heavy machine guns, supporting artillery and armor, and his four rifle companies. A number of factors influence the effectiveness of battalion fires.

The first is the ability to concentrate fire in the right place at the right time. Detailed coordination is made possible by well-developed procedures and effective command and control systems. Weapon ranges are a significant factor and for heavy caliber weapons result in systems requiring crews to operate and move them. Ammunition availability also effects a battalion's ability to generate firepower. In the case of a light infantry battalion most ammunition must be carried by soldiers on foot, adding greatly to the weight of their combat loads. A private soldier can expect to carry ammunition for his personal weapon, additional ammunition for one of his section's machine guns, possibly some antiarmor ammunition for the company support weapons, and probably two 81 millimeter rounds for the battalion mortars.

The next factor is the ability of soldiers to employ their respective weapons, under fire if necessary. Riflemen must be accurate and be able to respond to appropriate fire control orders. Machine gunners must be able to apply accurate controlled fire from their weapons and rapidly remedy faults in the system as they occur. Support weapon crews must be an integrated part of the weapon system, capable of close teamwork and able to meet the physical demands of operating and moving the weapon and its ammunition. This accuracy and teamwork can only be achieved through rigorous training under conditions that as nearly as possible resemble battle.

In the near future, New Zealand infantry battalions are likely to be motorized with a light armored vehicle. This will add to the range of weapon systems that commanders

may employ and may reduce some of the ammunition load that soldiers are presently required to carry. It would be reasonable, for example, to expect mortar ammunition to be moved by vehicle under most conditions. This cannot be relied on in every case, however; vehicles break down and restrictive terrain prevents their passage.

An effective light infantry battalion, then, will be able to apply accurate, well-controlled fire. Soldiers will be able to work as a team and competently operate the weapon systems they service. They will be physically able to move and manipulate their equipment. They will be capable of supplying the weapon systems with ammunition, on foot if necessary.

The battalion must also be able to sustain dominant maneuver, the second element of combat power. For a light infantry battalion this is generally achieved on foot. Subunits do not want to be encumbered by supply trains so as a result they end up carrying sufficient equipment to allow a degree of self-sufficiency. This supply load includes rations, water, weapons, survival equipment, spare clothing, night vision equipment, radios, and defensive stores, in addition to the ammunition mentioned above. In total it can exceed 40 kilograms (88 pounds). On operations in East Timor, I commanded a company carrying five days of supplies where the lightest load was some 95 pounds, even with limited ammunition. Quite obviously, moving a load like this on foot requires both physical strength and stamina. Maneuvering through restrictive terrain, as opposed to along a road, only makes these qualities more important. Maneuvering through restrictive terrain more quickly and efficiently than an enemy makes them critical to an effective force. Troops unable to carry a sufficient load or walk

fast enough reduce the battalion's ability to maneuver and therefore degrade its effectiveness.

The introduction of light armored vehicles into the NZDF will increase the maneuverability of the infantry battalions. The vehicles are not, however, infantry combat vehicles intended to carry soldiers onto a defended objective. They will drop soldiers in a staging area, leaving them to maneuver onto an objective on foot. In restrictive terrain they may be of no use at all. The requirement for physical strength and stamina still remains. An effective light infantry battalion, therefore, will be able to move faster on foot with a heavy load through any terrain, than an enemy force.

Protection is the next issue in determining the combat effectiveness of a unit. A light infantry unit protects itself in a number of ways, and in each of the domains of warfare: physical, cybernetic and moral (Schneider 1988, 6-7). In the physical domain protection from enemy fire is the easiest to define. Units, weapon systems, and individual soldiers must be protected from the effects of enemy fire in order to maintain superior combat power. Light infantry achieve this by the use of advantageous terrain in both the offense and defense. In addition, troops dig protective shelters with overhead cover to reduce the effect of enemy artillery and direct fire support. Troops also protect themselves by preparing obstacles to enemy maneuver, including mines, wire obstacles, and enhanced natural obstacles. All of this is demanding physical work. Fully preparing a company defensive position can take in excess of 48 consecutive hours of digging, carrying, back filling, and more digging.

In the cybernetic domain protection is less of a physical issue and more of an intellectual one. Preventive medicine is essential to preserve the strength of any fighting

force. Command and control systems must also be protected by both active and passive measures. Superior technology allows a force to communicate securely and to maintain a faster decision cycle than an enemy. Effective operational security ensures that a force's intentions are not inadvertently transmitted to the enemy. Deception is another means of ensuring adequate force protection. In each of these cases the requirement is for good cognitive skills and technical expertise, sound understanding of procedures and a degree of creativity rather than physical strength.

The fourth measure of a unit's effectiveness is its morale. So much has been written on the subject of morale that some distillation is required. Morale is more than simply a sense of well being. Morale at the individual level is the willingness of an individual to fight and defeat an enemy while putting his or her own life in danger. Group morale is the collective will of a force to achieve any task given to it. High morale can be the decisive factor in battle and can greatly enhance the performance of a unit in peace. A number of factors contribute to high morale.

The first and arguably most important of these factors is leadership. Strong leaders will impart a sense of purpose to a unit and unite the component parts in the achievement of a unified aim. They will ensure that the conditions for success are built by the formulation of effective plans and policies. Above all they will strive to develop the next essential element of morale--cohesion.

Cohesion comes in a number of forms, all equally important. Task cohesion is the collective will of a group to achieve a given task. Social cohesion is the tendency for the members of a group to enjoy working with each other. Much of the available literature argues that this social cohesion in a military environment is a function of "male

bonding.” The Israeli Defense Force considers that strong vertical, horizontal and organizational bonding, are all essential to an effective unit. History demonstrates that units with superior cohesion based on unit pride, trust, selfless service, and a common goal, perform better than less cohesive opponents. This cohesion will be evident at the weapon system, primary group, and organizational levels in an effective unit with high morale (Alderman 1993, 42).

The next element of morale is training. Training should not just build the skills and qualities necessary to maneuver, apply fire, and protect the force. It must also develop leadership and cohesion at each level within a unit. Furthermore it must build confidence and an expectation of success in battle. This means that it must be realistic and demanding to ensure that individuals are forced to rely upon one another, their equipment, and their procedures. Effective training will improve morale in addition to developing core skills. Soldiers will learn to trust their leadership and learn to overcome some of the fears and stresses of combat. Instilling discipline must always be part of the training regime.

Morale then, consists of a fabric of leadership, cohesion, and training. Each factor is interwoven with the others and all are interdependent. Leadership is the key though, for without strong, positive leadership, training will deteriorate, cohesion will diminish, and as a result morale will drop. This will result in a less effective unit.

In summary, operational effectiveness is the ability of an organization to complete the tasks set for it. In the case of a light infantry battalion this is to defeat an enemy in battle, and the means to achieve this is to generate superior combat power to that of an opponent. This is achieved by massing more fire, maneuvering more effectively,

protecting the force, and building superior morale. The combat environment is brutal, unforgiving, and stressful in the extreme. For the light infantry it is usually physically demanding as well. Effective soldiers must be able to dominate these harsh conditions.

What are the arguments for integrating women into combat units?

As discussed in chapter 3, the arguments for the integration of women follow three main trends. The first trend was the necessity for fairness and equity in a military force. The second was that the inclusion of women would increase effectiveness, while the third was a rebuttal of the arguments against integration. The first two trends will be examined in the following section.

In almost every case the argument for integration rests on the concept of employment equity. This idea forms the basis for the Burton Report and much of the other pro-integration literature. The key to the argument is that women should have the same opportunity as men for a successful career in the military. Excluding them from combat related employment prevents them from competing on an equal basis. This causes an unfair environment, resulting in dissatisfaction among a major segment of the work force. Proponents of this argument do not suggest that it is necessary to employ a person in a job for which they are unfit. It is, however, necessary, they argue, to allow everyone who *is* capable of performing in a particular job the opportunity to compete on an equal basis.

This is a strong argument. While it does not directly effect firepower, maneuver, or protection, the case for equity certainly has an effect on morale, and therefore combat power. A unit where it is perceived that some group receives favor over another will

have lower morale than a unit where all are treated fairly. The argument is further strengthened in New Zealand by the government's commitment to employment equity, translated into the NZDF Purchase Agreement. The New Zealand public expects its tax dollar to be spent on a military that is operationally effective, and also fair and equitable. This being the case, any integration plan must enhance this fairness and certainly not create further inequity during the integration process. Much of the literature emphasizes, for example, that women neither expect nor want any allowances made for them when full integration does occur. This is not to say that some arrangements should not be made to allow for privacy, but that standards must not be lowered simply to accommodate women. Neither should a dual standard be considered, as this would only be unfair to those to whom the higher standard applied. A second scheme that may cause inequity would be a quota system. This may be seen by some as necessary to ensure fairness and equity, but would probably have quite the opposite effect. The application of a quota will result in two problems. The first is that unqualified or unsuitable people may be selected to serve in infantry units. This already occurs with some male recruits, and will only be exacerbated by demanding a set proportion of female recruits. The result will be women who are incapable of meeting the physical requirements performing poorly, and ultimately being released from the service. They may well have had great potential in another area of military employment and have therefore been treated unfairly. The second issue is that if it is insisted that unqualified women fill combat posts, then men who are suitably skilled may be denied the chance to serve by women who are less suitable. This negates the very basis of the equity argument in the first place.

It should come as no surprise, therefore, when the gender demography of the infantry battalions does not exactly reflect that of the nation or even of the army as a whole. While it is accepted that some women do want an infantry career, all indications are that the proportion is significantly less than their male counterparts. Without preempting following arguments, it is also likely that a smaller proportion of women will reach the necessary physical standards, so we should not expect to see proportional representation. Insistence on proportional representation will result in less effective units and be unfair to women who do not necessarily want to serve in the infantry.

The second element to this argument is that the inclusion of women in combat units will improve operational effectiveness. This will occur because we double the pool of available talent and should therefore be able to recruit a better soldier. In addition some argue that the inclusion of a broader range of problem solving techniques into the decision making system will result in more diverse solutions to a variety of issues. This argument, while not as strong as that for employment equity, certainly has its merits. Although the recruiting pool would not necessarily double, because fewer women than men are interested in or physically suitable for infantry service, the pool certainly increases, and this can only result in more competition and therefore a better recruit.

It is possible to identify a number of areas where the inclusion of women may enhance the combat power, and therefore the combat effectiveness of a unit. If, as claimed, women bring a new dimension to the decision making process, innovative new approaches to the application of fire, maneuver and protection may be seen. An impact on morale will certainly be evident. While some argue that this impact will be negative, proponents suggest that women are at least as willing to fight as men are, particularly for

the right cause. The example of effective all female Russian battalions on the Eastern Front in World War II is often cited as evidence of this fighting spirit and high morale (Jones 2000, 145).

What are the arguments against integrating women into combat units?

In chapter 3, four criteria were selected under which to group the arguments against integrating women into combat units. These criteria were physical ability, psychological issues, societal perceptions, and organizational problems. The following analysis assesses each of these aspects against our criteria for an effective unit.

The most significant body of argument against gender integration claims that the infantry is essentially a physically demanding occupation, that women are less physically capable than men are, and therefore less effective combat soldiers (Brennan 1994, 52). Many studies have been conducted on the relative physical aptitude of men and women and most conclude that women do generally display less strength and endurance than men do. They also show that it is possible to develop the strength and endurance of some women to a level comparable to most men (D'Amico 1990, 6). Although many women are not physically suited to the rigors of infantry combat, nor are many men. These men are eliminated from service by the application of a job-related physical standard. The same standard should therefore be able to be applied to women.

Essential to this argument is the objectivity and relevance of the standard that is developed, and the fairness with which it is applied. To be fair, it must not be gender-tied, but must be directly derived from the job requirements. For this reason, a general physical fitness test such as the Army Physical Fitness Test (APFT) in the United States

or the Required Fitness Level (RFL) in New Zealand is inappropriate. These are satisfactory measures of general health and fitness and can quite fairly be tied to gender limitations. They are not, however, a measure of the physical requirements of infantry combat. These requirements should be separate and tied to combat effectiveness.

To illustrate this it is necessary to return to the combat power analysis to determine the effects of physical differences on combat effectiveness. An infantry unit relies on the ability to quickly cover difficult ground on foot carrying a heavy load to maneuver effectively. This has some obvious physical implications. An assessment of what a reasonable load is must be made. This should not be tied to body weight as some suggest, but should be tied directly to the quantities of ammunition and other supplies required to fight for a specified period. The infantry corps must identify a reasonable distance over which this maneuver should occur and this will be derived from tactical considerations. A key factor in the future will be the maximum likely distance from a dismount point to an objective. This may still be a substantial distance to make best use of unlikely approaches. A suitable time should also be identified, and this will be derived from battle preparation timings. The result will be an objective test based on job requirements. This should not be substituted by equivalent exercises, but should be tested under job conditions to job standard. Those who can meet the standard, regardless of gender, should be considered physically suitable for infantry employment. Those who cannot meet the standard should serve elsewhere.

Physical ability also has an effect on the ability to mass firepower. At the most basic level soldiers must be strong enough to aim and accurately fire their weapons. Operators of crew-served weapons must be strong enough to move and operate their

equipment and all soldiers must be able to carry sufficient ammunition to maintain the necessary weight of fire. Mortar operators, for example, must be able to move substantial quantities of ammunition off a vehicle to their weapon system and then manually load each round. For a long fire mission this becomes hard physical work. Commanders must decide whether every infantry soldier should be capable of crewing such systems, or whether crews should simply be selected from a broader general infantry base as they are now.

At the time of writing objective range results from New Zealand that would allow a comparison of male and female marksmanship scores on a variety of weapons were still unavailable. These data are yet to be gathered, so this must become an issue requiring further research in the future. In the mean time, it is sufficient to note that the best test of the physical strength required to employ a particular weapon is to fire that weapon under combat conditions. As this may well be required after a period of maneuver, the two physical tests could be combined. Insisting on compliance with an objective standard will ensure that a unit's ability to apply fire is not degraded.

Physical ability also has an effect on protection issues. In the physical domain of war, an infantry battalion relies on its ability to dig to protect itself. In the near future New Zealand units will also be able to rely on armored vehicles to offer a degree of protection from artillery and small arms fire under some conditions. This will not, however, remove the need to prepare a defensive position, and therefore the requirement to dig and prepare obstacles. Digging, of course, requires upper body strength, and digging for 48 hours on end requires a great deal of physical and mental endurance. If

this is identified as a requirement for New Zealand infantry soldiers, then once again an objective standard must be developed, then people tested to that standard.

Morale, arguably the most important element of combat power, is also affected by physical ability. Dr. Burton suggests that stronger team members could carry additional weight to make up for weaker members (Burton 1998, 24). This may well work in a truck section but it cannot work for the light infantry. Every soldier must be able to carry sufficient ammunition equipment to ensure his own survival. If he or she cannot, then he is not contributing to the output of the section. If he is not contributing then the bonding, and therefore the morale, of the section will diminish. Soldiers are generally happy and able to help out their team members *while that member is contributing to the team output*. This is why men who cannot meet the current standard are moved to other employment and the same principle should apply to women. I have watched women who can meet the current physical standards greatly enhance the morale of their team, simply because it engendered healthy competition with the men, and I believe this to be an effective way to ensure that the integration of women does not degrade cohesion.

The next category under which the arguments against gender integration can be grouped is psychological issues. Many men, and some women such as Stephanie Gutmann, argue that women are not psychologically suited to the brutality of combat. They argue that women are more sensitive than men and therefore less effective on the battlefield (Luddy 1994, 56). A second argument suggests that women are more likely to ignore the “gentlemanly rules” by which war has been fought by men and therefore will limit their actions less (D’Amico 1990, 10).

Opponents to these arguments point out that women can be more savage than men, particularly in the defense of home or family. They cite a wealth of historical examples from Boudicea to Israel where women have fought effectively, without any apparent psychological difference to men. It is likely that the answer lies somewhere in between, and that generalization is inappropriate. Some women (and some men) are unquestionably unsuited to the psychological hardships of infantry combat. Some others could equally be well suited and should therefore at least have the opportunity to compete on the same basis as men. It is interesting to note that most of the objections to integration on a psychological basis is made by men.

Psychological issues do not appear to have a direct impact on firepower, maneuver, or protection. They do, however, effect morale, or the will to fight. If women are less willing to fight than men, then morale, and therefore combat effectiveness are degraded. On the other hand, this may well be appropriate in some circumstances, such as peace operations, where a greater degree of restraint is required. Addressing this issue must start at the selection process, and continue throughout all individual and collective training. Personnel must be selected for service based on a suitable psychological profile, and an aptitude for dealing with the stresses of combat must be included in this profile. The skills and qualities for dealing with these stresses must continue to be developed through effective training, and if necessary further selection. Such training need not only apply to women. Many men also benefit from learning stress management techniques, particularly in a combat environment. Group bonding is another issue affecting this psychological dimension, but will be addressed later.

Some object to women serving in combat because “society will never accept it.” Others see men and women working together without sexual attraction interfering as impossible. These societal issues certainly have an impact on effectiveness and must therefore be considered in preparing a plan for integration. Once again, the bulk of the objections to integration in this category come from men.

It may once have been true that society could not tolerate the thought of women being captured or killed in combat. If this were the case, then casualties could well result in the loss of public support for an operation and the downstream effect would certainly be a decrease in the effectiveness of a force, if not the infantry in particular. There is therefore a protection issue; the positive public image of the force must be protected to maintain its effectiveness. Recent history shows that this public aversion to female casualties may not be as strong as some believe. Women captured and abused during the Gulf War did not bring about the defeat of the coalition force. The deaths in 2,000 of two women on the *USS Cole* caused no greater comment than those of the men in the same incident. It appears that society is beginning to accept that women are as liable to the risks of combat as men are, and that male lives are just as valuable as female lives. Men are just as vulnerable to abuse and sodomy as a means of domination and humiliation as women prisoners, and the results are no less tragic. The correct protective measure to take, then, is to prepare the public, not shield women from combat. People must understand that if the military is sent into combat by their government, then there may well be casualties among their own troops. In a modern army espousing the principles of employment equity some of these casualties may well be women. The casualties will, however, be women who were proudly serving their country, doing what they wanted to

do and competing on an equal basis to their male counterparts. As Dr. Burton states: “They are soldiers or officers first, women second, and that is how they like it to be” (Burton 1998, 134).

When men and women work together there is the potential for sexual attraction between superiors and subordinates to adversely influence the group. In the case of the infantry some argue that it will have a negative effect on group bonding and therefore morale. If a commander shows favor to a subordinate to whom he or she is attracted, the perception of fairness and equity within the group will be eroded. The primary group bond will therefore weaken. The solutions to this problem are threefold.

The first part of a solution is in training. Commanders must be trained to understand the effects of letting sexual attraction and favoritism effect their decisions. Subordinates must also be trained to recognize this, so that they are less inclined to allow it. The second part of a solution is to alter the command climate. It must be universally perceived that a sexual or emotional relationship between superior and subordinate is inappropriate because of the potential effect on morale. This is not presently the case in the New Zealand military. This will be especially important in small infantry organizations, which live and work together for weeks on end in close confines in the field. The third part of the solution must support the development of an appropriate command climate; discipline is essential. Appropriate and inappropriate behavior must be clearly defined and then enforced.

The last group of arguments against gender integration concerns organizational issues. Some consider that the accommodations within a combat unit necessitated by the

inclusion of women will reduce combat effectiveness. Concerns, such as the need for additional privacy and the effect on group bonding, are voiced regularly.

As with most of the nonphysical criteria, the effects of these organizational issues on firepower, maneuver, and protection are less tangible than the effect on morale. One fundamental issue is the development of a support structure of females at each rank level. Dr. Burton highlights the importance of this (Burton 1998, 241), and CGS directs that it occur as quickly as possible (*CGS Directive 39/00* 2000, 7). The question is where to insert women into the battalion structure. It would appear to be appropriate at two levels, and these are as private soldiers or newly commissioned officers. These are the two levels at which prior experience in the trade is less important and that credibility is less of a factor. Noncommissioned officers and more senior officers are expected to have the knowledge gained from experience and also hold credibility for having passed certain rites of passage such as demanding training. Appointing unqualified, less credible, personnel to such positions is preparing the conditions for failure. Women must not be seen to have taken a short cut to command, and to have gone through the same difficult process as their peers. Any gap in the support structure at the noncommissioned officer level must be covered by female noncommissioned officers in noncombat appointments within the unit such as clerical staff.

The next issue is the distribution of women across the unit. Two broad options present themselves. All of the women can be concentrated into one subunit, or they can be distributed across the unit as a whole. Concentrating them in one subunit will cause a number of problems. The first is that the combat experience base, currently male, will not be as immediately available for training purposes. The second is that any difficulties

brought about by the physical differences between men and women will not be tempered by the presence of males. Perhaps the most important issue is that we will only be perpetuating the current problem of perceived differences and inequity. Concentration does offer one positive effect, though, and that is that women will not feel isolated in a male environment and will have female support readily available.

Distributing women across the unit also has the potential to cause problems. Women may be more isolated, possibly being the only woman in a section or even platoon. The effects of integration, positive and negative, will be less visible, and the effect on small group bonding may be negative. Privacy of field ablutions and even barrack accommodation becomes an issue. This option does however best meet the intent of integration in the first place. It offers women the opportunity for equity and fairness. It allows them to learn from their more experienced male counterparts and with good leadership will foster a healthy spirit of competition within units. Solutions to privacy issues can always be found. Innovative planning of new facilities and staggered timings for ablutions are examples, and once again training will become a key issue. Acceptance by men and women of a lower degree of privacy may well be part of the solution.

One of the most contentious issues is the effect that the presence of women will have on unit cohesion. Some argue that cohesion is based on male bonding, and will be inhibited by the presence of women. Less cohesion means lower morale, therefore less combat power and consequently a less effective unit. This argument is short sighted. Cohesion has been shown to depend on unit pride, trust, selfless service, and a common goal. These qualities, built and guided by strong leadership, will result in a cohesive unit

regardless of gender makeup. Leaders must develop the warrior spirit among all of their subordinates, and inculcate the will to fight and win as a team.

Opponents to this view argue that it is natural for men to develop a more protective bond with women than with their male comrades and therefore risk achievement of the task if women are threatened or injured. They claim that this attitude is so deeply ingrained that it cannot be overcome. They fail to consider two factors. The first is that these same men have already been trained to overcome deeply seated prohibitions against killing other men, and have also been trained to overcome that most basic instinct of self-preservation and put their lives at risks for their comrades. The second factor is that it is just such strong bonds that form the basis of the group cohesion that is so essential to combat effectiveness. Adequate training and strong leadership will ensure that these bonds add to the effectiveness of a unit rather than degrade it.

Pregnancy and absenteeism are further issues that must be dealt with at the organizational level. Opponents to integration claim that a higher proportion of women in an organization will result in higher absenteeism due to pregnancy and that this will reduce effectiveness. No figures are yet available on this area in New Zealand, although US research suggests that male absenteeism because of sports injuries or disciplinary reasons are far more significant. Regardless, policy must be formulated to reduce the possible effect on a unit, which will arguably become more significant as the proportion of women increases. It may be appropriate, for example, to raise the manning level of units at high degrees of readiness to balance the possibility of pregnant women being unable to train or deploy. Certainly women in these units who become pregnant should be prepared to serve elsewhere until they are fit to return to full duties. This applies

equally to men who are unfit for service now. Should, as some suggest, women in key positions require permission to fall pregnant? It is unlikely that the initial impact of integration will require this somewhat draconian measure. The highest priority should be to gather data now to assess the impact of this issue.

What is the most effective means of integration that best maintains or improves a combat unit's operational effectiveness?

Any integration system must in the first instance enhance fairness, not impede it. Quotas must therefore be avoided and there should be no expectation that women will be represented in the same proportion in the infantry as elsewhere in the service. Combat service should be voluntary for men and women, although if compulsory service were ever to be required, consideration must be given to making women equally liable to men. An effective process will capitalize on innovative new solutions to old problems, while ensuring that the full potential of a broader recruiting base is tapped.

The system of integration must account for the physical differences between men and women. Redesigning equipment will assist in this regard, but the key will be an objective assessment of the physical requirements of infantry combat. The current fitness tests are not adequate for this purpose, although they are an appropriate measure of the health and fitness of an individual. In developing the physical requirements, they should be derived from tactical considerations and take the new armored vehicle into account. These physical requirements should relate directly to combat tasks and be tested to job standard.

The psychological differences between men and women must also be considered, although these may well be less significant than many believe. Both women and men

selected for combat service must have a suitable psychological profile, and must receive training to deal with the stresses of combat. This training must be equally appropriate for men and women and should include training in the psychological differences between the sexes.

The general public must be prepared for the effects of gender integration. They must understand that women are in fact able to serve in combat and that if the army is deployed there may be female casualties. The media must also be prepared, so that integration becomes accepted as the norm rather than a sensational issue. A command climate with no tolerance for sexual relationships between superiors and subordinates is absolutely essential. This must be supported by appropriate training and disciplinary measures.

When women are introduced into units they must have the best possible chance of success. This will mean that they should join as private soldiers and junior officers, not as noncommissioned officers or more senior officers from elsewhere in the military. They will then have the opportunity to advance and gain credibility commensurate with their peers. Women should also be distributed across the units, and issues such as privacy in the field must be considered. Leaders must be trained to build cohesion based on more enduring qualities than male bonding. Policy sensitive to the requirements of pregnant women must be developed, and data gathered on the effect that absenteeism due to pregnancy will have on an infantry unit.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Success in the first major war of the Atomic Age hinged not on high technology but on the performance of the old-fashioned soldier on foot, the ancient and unglamorous [sic] 'Cinderella' of the army. (1981, 177)

English, On Infantry

The argument about whether women should serve in the New Zealand infantry is over. It is time now to determine the most effective method of integrating them into infantry units, ensuring that operational effectiveness is enhanced, not diminished. This research leads to the conclusion that women can be integrated into light infantry units without sacrificing combat effectiveness, as long as a carefully planned and cautious integration process is developed. Finding answers to each of the subordinate questions will allow identification of a means by which to achieve this.

Conclusions

The answer to the first subordinate question, What is operational effectiveness? can now be framed. Operational effectiveness is that essential quality of a combat unit that allows it to defeat an enemy in battle. Effectiveness must incorporate compliance with government requirements, including a commitment to employment equity, although this should not overshadow the requirement for the military to fight and win the nation's wars. Whatever method of integration is used must therefore take into account the effect on the combat power of the unit, as this combat power is a direct measurement of the combat effectiveness of an infantry battalion.

Combat power has four measurable elements: firepower, maneuver, protection, and morale. Each of these elements will be effected by the inclusion of women in infantry units. The different means by which women may be integrated, however, will cause different effects, and therefore must form part of a carefully planned process. Key to the process will be the need for cultural change, although broader issues covering areas as diverse as training, equipment, and organizational structure must also be addressed. The potential for a politically correct over-correction of the present unbalanced situation must be avoided.

Firepower, the first element of combat power, could be effected by the inclusion of women in a number of ways. The introduction of a feminine thought process or decision making process may result in innovative new ways of applying fires and therefore make the battalion's resources more effective. Alternatively, a decrease in physical ability may result in less ammunition being carried or lighter, less powerful weapons being required, and therefore less fire being available to commanders. This physical theme is a recurring one and should therefore be addressed as a priority among any solutions that are developed.

Currently a light infantry unit's maneuver capability is measured by its ability to cover ground on foot. This may have to occur over difficult terrain in unpleasant conditions carrying a heavy load. Even the motorization of battalions will not completely alleviate the requirement to maneuver on foot; current operations in East Timor are predominantly dismounted. This further emphasizes the need for physical strength and endurance in infantry soldiers if they are to retain a competitive advantage on the battlefield.

Protection covers a broad range of activities, some of which are also intensely physically demanding. Upper body strength and physical endurance are therefore essential characteristics of effective soldiers. On the other hand, activities, such as information operations and operational security, require a great deal of creative and interpretive thought, and could therefore be enhanced by the inclusion of a broader base of personnel.

Morale is perhaps the most complex of the elements of combat power to examine and potentially the element most profoundly effected by the inclusion of women in infantry units. Briefly, morale is a function of the effective integration of leadership, cohesion, and training. A military force must have an uncompromising commitment to the achievement of a task, and this must be developed by strong leaders. Unit pride, trust, selfless service, and common goals, are far more enduring factors leading to strong cohesion than male bonding. Training must closely simulate the conditions of the battlefield and should reinforce both discipline and cohesion. Soldiers who are treated unfairly or inequitably will develop the resentment of their peers, therefore cohesion will be hampered, morale will diminish, and combat power will consequently be reduced.

The answer to the second subordinate question, What are the arguments for integrating women into combat units? is far simpler. The arguments fall into two categories. The far more convincing category is that people, regardless of gender, who are suitably qualified to perform a particular function should at least have the opportunity to compete on a level playing field. Given the fact that employment equity is one of the basic employment principles of the NZDF, this factor gains even more weight, and can be linked directly to the operational effectiveness of a unit.

The second category of arguments in favor of gender integration argues that the inclusion of women in a unit will in fact enhance its combat effectiveness. This, it is argued, is because the talent pool is increased, and the introduction of a more diverse problem solving technique will lead to innovative new solutions to old problems. Any integration method we develop should therefore enhance the effects of a fairer and more equitable working environment and capitalize on a broader recruiting base.

The third subordinate question, What are the arguments against integrating women into combat units? requires a more substantial answer. The arguments against gender integration are many and varied, but can be grouped into four main categories. These categories are physical ability, psychological issues, societal perceptions, and organizational problems.

Many argue that women simply do not have the physical strength or endurance to perform adequately in infantry combat. The counterargument is that some women do have the physical attributes to perform well, and should therefore at least have the opportunity to compete. In any case there are many men who are not strong enough for infantry service, and they are effectively screened out. It is therefore concluded that an argument based on physical ability is invalid for these reasons. Any integration method must, however, account for a difference in physical ability and this must be achieved in the fairest possible manner. This means the development of an objective, requirement-based physical standard that is tested under job conditions. Those who can meet the standard, male or female, should be considered physically suitable for infantry service. Those unable to meet the standard, male or female, should be considered unsuitable.

The next category of argument against integration is psychological issues. Some suggest that women are psychologically unsuited to the rigors of combat. Generalization in this area is inappropriate. Some women may well be psychologically unsuitable for the stresses of combat, but once again so are some men. It is therefore concluded that this argument is also invalid. The solution is to develop an objective psychological profile for combat officers, based on combat requirements rather than gender characteristics. This profile should be applied equally to male and female recruits. Subsequent training must ensure that psychological issues do not adversely effect combat effectiveness.

Society in general must be prepared to have its daughters as well as sons in combat. Government and the NZDF must make quite clear the implications of employment equity, and the fact that women will potentially be exposed to a higher degree of risk. This will alleviate what some see as insurmountable societal issues preventing effective integration of women into combat units. In any case public opposition to female casualties in recent times has been minimal, leading to the conclusion that this argument is the least significant of those against integration.

There will be some organizational issues requiring resolution when women are integrated into light infantry units. At the most fundamental level these issues involve privacy (for both genders) and support for a potentially isolated group of women. The need to maintain morale and implement a system that enhances equity and fairness leads to the conclusion that women will best be distributed across a whole infantry unit, rather than concentrated in one particular area. They should be introduced at the bottom of the commissioned and noncommissioned ladders to ensure that they build the same

credibility as their male peers. The effect that the inclusion of women in a predominantly male environment has on cohesion cannot yet be quantified, although indications are that other issues have greater effect than gender mix. Before answering the fourth subordinate question and developing some recommendations, some areas require more detailed examination than was possible in this thesis.

Areas for Further Study

It is apparent so far that a number of important issues remain unresolved. So much effort has gone into the discussion over whether or not to integrate women into combat units that very little has been said about how to do it. Information in many areas must now be gathered and analyzed. The first area is to quantify the effect of the inclusion of women on a unit's combat power. A concerted effort to collect and assess marksmanship results is necessary, as well as an assessment of women's ability to apply the fire of crew-served weapon systems.

The integration process must not stagnate, but should be under constant review and analysis. The effect of including women on the cohesion of combat units must be evaluated over a longer term than has currently been possible. Further research on the psychological differences between men and women in a combat environment would also be useful. No accurate data exist concerning relative absenteeism rates of men and women in the New Zealand Army. As this is likely to become an issue with the inclusion of women in combat units, some research is now appropriate.

It is essential to derive an objective physical standard from tactical requirements. It is also desirable to develop a psychological profile for a person suitable for combat

operation. Subject matter experts should conduct these studies in conjunction with tactical commanders.

At present there are no data on public perceptions of the possibility of women serving in combat appointments. This perception could have a profound effect on NZDF operations in the future, and the present ignorance of public opinion is a liability. NZDF should research this issue as a matter of priority.

Recommendations

The answer to the fourth subordinate question, What is the most effective means of integration that best maintains or improves our operational effectiveness? leads to a number of recommendations. Quite simply, the most effective means of integration will enhance fairness and equity, avoid degradation of physical standards, and account for psychological differences between men and women. It will ensure adequate standards of privacy, and set clear policy from which unit commanders will be able to derive their own plans. Accordingly, the following recommendations are made:

1. That women be integrated into combat appointments in the infantry battalions as platoon commanders or private soldiers. The necessary support network must be provided from clerical staff in the early period.
2. That adoption of a quota system for recruitment be strenuously avoided.
3. That an objective tactically derived physical standard for infantry combat service be developed and that rigid adherence to the policy for both men and women be necessary.

4. That NZDF undertake a public information campaign to ensure that the New Zealand public understands the implications of employment equity in the military.
5. That NZDF develop a culture that does not tolerate inappropriate relationships between the ranks. This must include a review of the standards for appropriate sexual behavior, and formulation of policy intended to prevent inappropriate relationships from forming.
6. That training programs be developed to ensure understanding of the issues relating to gender integration in both gender groups, not just for men as currently proposed.
7. That NZDF research the New Zealand public's opinion on the inclusion of women in combat forces, and the possibility of incurring female casualties.

It is considered that these recommendations are consistent with those made by Dr. Burton (Burton 1998, 231-243). They do not address two of Dr. Burton's recommendations, specifically those concerning flexible work arrangements and part-time work. Given the nature of infantry training and the overriding importance of cohesion and team unity in combat units, it is considered essential for all soldiers in a team to train together. This greatly reduces the flexibility that can be applied to develop a family-friendly environment. It is considered that unit commanders, who have sufficient flexibility under current regulations, best resolve these issues.

In the mean time, the key issue for commanders will be cultural change. It is hoped that the approach taken toward some of the problems identified in this research will assist commanders in bringing about change in their units. Open, receptive minds will lay a sound base for integration, and success by the first group of women to serve in

combat appointments will build on that base. Those women must therefore be given the best chance of success; they should be carefully selected, and should not receive any preferential treatment. Not only will it breed resentment among their peers; they simply do not want it.

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